

### Who is responsible in winter? Traffic accidents, the fight against hazardous weather and the role of law in a history of risks

Itzen, Peter

Veröffentlichungsversion / Published Version  
Zeitschriftenartikel / journal article

**Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:**  
GESIS - Leibniz-Institut für Sozialwissenschaften

#### Empfohlene Zitierung / Suggested Citation:

Itzen, P. (2016). Who is responsible in winter? Traffic accidents, the fight against hazardous weather and the role of law in a history of risks. *Historical Social Research*, 41(1), 154-175. <https://doi.org/10.12759/hsr.41.2016.1.154-175>

#### Nutzungsbedingungen:

Dieser Text wird unter einer CC BY Lizenz (Namensnennung) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier:  
<https://creativecommons.org/licenses/by/4.0/deed.de>

#### Terms of use:

This document is made available under a CC BY Licence (Attribution). For more Information see:  
<https://creativecommons.org/licenses/by/4.0>

---

# Who is Responsible in Winter? Traffic Accidents, the Fight against Hazardous Weather and the Role of Law in a History of Risks

Peter Itzen\*

---

**Abstract:** »Wer ist im Winter verantwortlich? Verkehrsunfälle, der Kampf gegen gefährliches Wetter und die Rolle des Rechts in der Risikogeschichte«. This paper analyses the role of law in modern risk debates. Inspired by concepts of historical anthropology, it proposes to put more effort into the historical analysis of law and legal debates in order to understand long-term change in the history of everyday life. The paper takes the discussions on the establishment of a winter service in Germany in the first decades of the twentieth century as an example for this, and demonstrates how legal experts reflected changed perceptions of both nature and related everyday risks and gave them a practical legal meaning by integrating them into existing and widely accepted legal concepts. By doing so, the legal discourse on hazardous weather conditions added significantly to the paradigm shift towards a greater role of the state in the mitigation of everyday risks. As in other debates on everyday risks, law functioned as a hinge between risk perception and risk management.

**Keywords:** Everyday risks, nature, historical anthropology, law, traffic accidents, National Socialism.

---

## 1. A Curious Incident in January 1850<sup>1</sup>

---

It was an arduous journey that the French ambassador to Russia, General de Castelbajac, and his wife had to endure when they returned to Russia during the heavy winter weather of January, 1850. Originally, they had planned to travel by rail. Heavy winter storms, however, forced them to try to travel through snowy East Europe with a normal horse carriage. But even this traditional and well-tested method of transport could not cope with the arduous weather condition. On the 20th of January, in Silesia, the French ambassador's already very

---

\* Peter Itzen, Department of History, Albert Ludwig University Freiburg, Rempartstr. 15, 79085 Freiburg, Germany; peter.itzen@geschichte.uni-freiburg.de.

<sup>1</sup> Research on this topic has been financed with the help of a fellowship at the Freiburg Institute for Advanced Studies in 2013–2014. I thank the other FRIAS fellows and Franz-Josef Brüggemeier for fruitful discussions and the members of the FRIAS organisational team for their great support.

uncomfortable journey came to a sudden halt. The snow-covered road made it so difficult to manoeuvre the carriage that it fell over, tipping the ambassador and his wife out of the carriage onto the snow, causing slight injuries. The carriage was damaged, so the ambassador was forced to spend the night in Lublinitz, a small town in Silesia. Without warning, its inhabitants now had to attend to the annoyed honourable couple, including finding appropriate accommodation for them. In his report to the Prussian authorities, the District Administrator of Lublinitz, Landrat Koscielski, argued that neither the town of Lublinitz nor the surrounding county had any responsibility for what had happened. Admittedly, the streets had been heavily covered with snow and could not easily be used by carriages. But the Landrat argued that this was not the cause of the accident. Rather, Koscielski continued, a thorough investigation of the accident had shown that the carriage had not been properly loaded, the runners had not been renewed and – most importantly – the driver was not skilled in steering a carriage through heavy winter weather. The Prussian home office was satisfied with the explanation and the next day the French couple continued their strenuous journey to St. Petersburg.<sup>2</sup>

It may seem a bit bizarre to begin an article that mainly deals with the twentieth century with an episode from the middle of the nineteenth century. However, the example from 1850 allows me to more clearly demonstrate how the concept of risk and risk prevention has changed from the nineteenth century to the current age, dominated by automobile traffic systems. Nowadays, great efforts are made to clear the roads of snow and to facilitate transport even in times of harsh and very difficult weather conditions. To be able to get from one point to another without risking one's health is regarded as an essential element of a complex, mobile and highly sophisticated society that prides itself on its infrastructures that allow for easy and swift transport in nearly all circumstances. Hence, it is not only the provision of infrastructure that is seen as a core element of modern statehood, but also the ability to use it – and to do so without putting anyone at great risk. While the first element became important during the emergence of the modern state and trade capitalism in early modern Europe, the latter was mainly an invention of the twentieth century.<sup>3</sup> From a historical perspective of risk – and particularly of everyday risks – this change from a provision of roads to a provision of safe roads implied another important paradigmatic change, the change from individual responsibility to a shared responsibility that implied a new role of the state in the provision of security and safety. This article is based on the thesis that one of the most im-

---

<sup>2</sup> Cf. I. HA Rep. 77 Ministerium des Innern, Tit. 1328 Nr. 31.

<sup>3</sup> Compared to the twentieth century, only relatively few legal regulations dealt with the provision of safety and security. In the *Allgemeine Landrecht*, the Prussian Law Code from 1794, merely some general remarks on the ban of speeding are included (Hattenhauer 1994, 702).

portant reasons for this change in risk mitigation culture was the influence of legal conceptions and debates on the perception of risks and their mitigation.

---

## 2. The History of Everyday Risks, Law and Historical Anthropology

---

Everyday risks seem to be a constant element of all human societies. Transport in itself, for instance, was always a risky enterprise. Robbery, technical failure of the transport vehicle or a collision with another transport vehicle is always possible; we know from archival material on post coaches that accidents must have happened quite often. Why should we as historians be bothered to analyse a phenomenon that seems to lack a significant historical dynamic and is often regarded as a ‘natural’ or ‘self-evident’ element of human life? I see three major reasons for this:

Firstly, historians studying everyday risks can help to understand historical notions of self-evidence and how they change. Historical anthropology deals – in the words of the historian and cultural anthropologist, Jochen Martin – with the ‘change of constant things.’ By using that phrase, Martin alludes to basic human experiences, their perception, possible changes and to the question of how these experiences become or cease to be self-evident (Martin 2006; see also Reinhard 2004, 11). The perception of one’s own body, the relationship to other humans and the relationship towards nature are typical examples of these basic experiences, and so are everyday risks like traffic accidents, especially when they occur in connection with difficult or challenging weather conditions. Martin describes these basic experiences as challenges because they often reveal the contrast between how things are and how things should be. He exemplifies this with adolescence, which is regarded as a self-evident phase in the development of human beings, but which is biologically neither necessary nor does adolescence always progress in the same manner in terms of its length and implications. What is seen as self-evident is therefore subject to change. It is this change of self-evidence, its loss and its rethinking, which can be witnessed in relation to traffic accidents during the course of the first half of the twentieth century. With regard to traffic accidents, there are expectations as to whether they are acceptable, how they can be confronted and how they should be dealt with once they occur.

An interest in ‘the change of constant things’ can, secondly, offer chronologies, causalities and narratives that differ from established readings in political, social and economic history. Attitudes and expectations concerning age change at a different and mostly slower pace than political structures (though both developments might be related to each other). The same goes for debates and expectations concerning everyday risks: The political and social debates of the day often leave out constant things like the experience of everyday risks – or

these discussions take place on a slightly more obscure expert level. This is easily explained with what Gerd Gigerenzer has called ‘social learning’ (Gigerenzer o. J. [2015]): People base their assessment of risky situations not on the grounds of critical, analytical reasoning, but on what they experience as acceptable social practice. Thus, radiation from mobile phones may appear extremely dangerous while motorised traffic seems to be normal and fairly secure even though it claims many thousands of lives each year. Yet if the assessment of these risks changes it also signals changes in other fields of historical development, as for instance when scientific research became increasingly aware of the risk of smoking in the second half of the twentieth century (Berridge 2003). Additionally, analysing everyday risks as historians focuses scientific attention on a huge social problem that is often underestimated by historians and social scientists. After all, while military conflicts deeply affect people’s life, everyday risks often have a stronger impact. How we experience these risks is the result of cultural, social and political path-dependencies, but they can also determine and change these path dependencies.

Thirdly, historians studying risks can contribute to our understanding of societal conceptions of social justice. The management of everyday risks and the changing manner in which we cope with such risks are important indicators for the meaning of social justice in a society. A history of the management of and reactions to risks can offer an important tool to describe the character and change of social justice conceptions. The connection between everyday risks and concepts of social justice may not seem very obvious, but the link is, in fact, a very close one. Concepts of social justice deal with finding a socially acceptable relationship between individual rights on the one side and the public interest and community rights on the other (Böckenförde 1999), and this relationship is constitutive for the perception of risks, their mitigation and development. Tolerability of risks and debates about them always deal with the conflict between an individual’s freedom of action and the distribution of the accompanying dangers and resulting costs.

With regard to traffic accidents, this becomes clear in two ways: First, in most cases they involve two different parties with a different set of interests and social backgrounds. This is most obvious when, for instance, a car or a coach collides with another car or coach, or runs over a pedestrian or cyclist. In the most favourable circumstances only material damage and minor injuries have to be dealt with; in tragic circumstances, injured persons need to be hospitalised or the relatives of deceased persons must find ways to deal with the loss of a loved one who often was the breadwinner of the family. Whether and how help in these circumstances is organised and what kind of institutions are seen as having responsibility for handling these situations is linked to notions of social justice that are often more permanent than the change of political regimes and institu-

tions.<sup>4</sup> The second reason is the sheer scale of the problem – and how this problem is evaluated publicly. The connection becomes rather obvious when one considers, for example, West Germany in the 1970s, where 19,000 people were killed annually in car accidents and more than 500,000 people were injured (Klenke 1995, 50); but traffic accidents were a widespread phenomenon already at the beginning of the twentieth century, triggering the question of how a society can finance the immense costs of these risks. An analysis of traffic accidents as an example of widespread everyday risks can therefore also serve to exemplify notions of social justice, practices of social redistribution and ideas of social responsibility.

Finally, what is the role of the law in all this? Law is the main regulator of the relationship between individual freedom and community rights and is therefore also the central element for the regulation of risks. However, law is not only the main technical regulator that distributes costs, risks and responsibilities; it is also constitutive for the emergence of social expectations and notions of self-evidence. Yet law also needs widespread acceptance. Hence, changing notions of self-evidence most often lead to a change of the meaning of law. A shift in public expectations will also affect the meaning and the normative consequences of legal concepts. In other words: Law is the cultural institution that connects the perception and regulation of risks. The general interconnect-edness between legal debates and public expectations and notions of self-evidence is long since accepted among legal scholars (Würtenberger 1991). Yet among historians, the role of law has long been neglected as a historical force in its own right (Grimm 2000).

---

### 3. Traffic Accidents, Hazardous Nature and the Regulatory System in the Pre-Automobile World

---

The incident in Silesia in 1850 with which this article was introduced is an example of how normal accidents and the difficulties of travel during winter time were regarded by the Prussian administration – and presumably also by the public. This occurrence found its way into the Prussian Home Office papers only because an ambassador, and hence matters of state, were involved. Up until the end of the nineteenth century, there was hardly any reliable data available about any form of traffic accidents. Only when persons holding important public offices were involved in accidents or, alternatively, when important

---

<sup>4</sup> Though it is not part of this essay I might also add that such long and medium term changes of notions of social justice can also feed indirectly into political debates.

economic interests were affected do we find records of accidents in the pre-automobile era.<sup>5</sup>

The aforementioned lack of any kind of even primitive statistics regarding traffic accidents is therefore most likely not an indication of the rarity of the phenomenon, but of its relative economic or political irrelevance at the time and, possibly, also for its normality. Accidents with horse-drawn carriages were probably quite commonplace (Möser 2008, 65). The technical quality of traditional transport vehicles was poor and prone to malfunctions. Still, since the beginning in the seventeenth century, attempts had been made to continuously improve the technical quality of transport vehicles (Popplow 2008, 101-4). Efficient control of horses was even more important. Horses easily panicked, causing damage and injuries. Here, too, some innovations had been introduced (such as improved blinkers), but it is unclear how effective these measures actually were (Poppe 1837, 321). Yet accidents were not only frequent, they also often had grave consequences. The state of medical research and knowledge made any possible injury following an accident potentially far more dangerous than in the later twentieth century. Not only were there few possibilities to stop or compensate for major, potentially life-threatening bleeding. Also, the aftereffects of injuries resulting from accidents could be rather disagreeable. Before the discovery of germs at the end of the nineteenth century and the invention of antibiotics in the 1940s, even injuries that were not instantly life threatening could ultimately develop into a serious health hazard (Porter 1997; 2006, 200).

Harsh weather conditions made road traffic and other forms of transport an even more risky enterprise – sometimes so risky that no means of transport was possible (Behringer 2003, 98, 543). This was, of course, particularly true for the winter. The winter season in itself presents challenges to human life, demanding capabilities for food preservation or heating, sometimes leading to conflicts between the population and local government about the use of wood from forests (Brüggemeier 2014, 68). A harsh winter could threaten the supply of food and thus threaten the welfare of the whole society. Extreme winters like the one of 1739/40 were traumatic experiences for the middle-European society (Behringer 2007, 209-11).

In the nineteenth century, whoever travelled in winter by coach through Europe was engaging in a dangerous activity at a dangerous time. To facilitate travel in the winter, coaches were drawn on runners, but that neither guaranteed swift progress nor a safe journey. For one thing, by far not all roads were cleared from snow; only some regions were familiar with the use of snow-

---

<sup>5</sup> As early as the seventeenth century, postal office services in some German territories kept records about accidents with post coaches in order to deal with demands for fiscal compensation and to be able to react to public anger against allegedly racing and irresponsible postal workers (Behringer 2003, 668).

ploughs. These technical deficiencies were mirrored by an interesting lack of regulation concerning safety features for both carriages and roads. Although the cold climate and harsh winters that dominated Europe during the ‘little ice age’ and thereafter had contributed to the rise of the state and regulative regimes in Europe, this development had little effect on travel conditions during the winter. The increasing amount of regulations mainly dealt with codes of practices for the subjects of a state (Becker 2005, 361-5). Accordingly, although there was no systematic law code on traffic regulation in Prussia in 1850, a long list of legal regulations existed.<sup>6</sup> Yet most of these regulations had the sole aim of protecting the streets from damage, while driver and passenger safety was regarded as less important. For instance, as traffic increasingly crossed administrative borders within Germany, one of the main interests was to precisely regulate the width of the axles, thereby ensuring that the roads were evenly used by the various carriages and coaches.<sup>7</sup>

Very few regulations at all dealt with traffic regulation during winter time – and if they existed they primarily had the function to protect the road rather than the driver or to keep the road free from snow, an obligation that was, however, limited to built-up areas.<sup>8</sup> Accordingly, the use of snow chains was strictly regulated because the Prussian administration was afraid their use might otherwise damage the road.<sup>9</sup> Such regulations concerning hazardous road conditions during winter time were representative of the general risk regulation system of the pre-automobile era. Hardly any general rules concerning the prevention or the regulation of accidents and crashes existed at all. Instead responsibility for risk-taking therefore lay almost entirely with the road users.

---

#### 4. The Establishment of a New Risk Regime at the Beginning of the Twentieth Century

---

This traditional relationship between risk and responsibility got challenged by the increasingly widespread introduction of insurances against risks during the nineteenth and early twentieth centuries. Following earlier developments that had introduced insurance as a tool to deal with risks (such as, for instance, in shipping) railway accidents and hazards at workplaces led to the establishment of a new risk regime with new concepts of responsibility (Mohun 2013; Zwier-

---

<sup>6</sup> Cf. Ludwig von Rönne, *Die Wege-Polizei und das Wege-Recht des Preußischen Staates*, Breslau 1852.

<sup>7</sup> Cf. I. HA Rep. 77 Ministerium des Innern, Tit. 1328, Nr. 3 Bd. 1.

<sup>8</sup> An example for such an obligation can be found in a decree of the state of Baden from 1884: *Vollzugsordnung zum Straßengesetz. Offenhaltung der öffentlichen Wege bei Schnee-Anhäufungen*, Karlsruhe 1885.

<sup>9</sup> This topic will be further explored below.



lein 2011; Brüggemeier 1996, 133-51, 199-215). These new concepts shifted the focus away from the individual and placed the burden of controlling and mitigating these risks, as well as compensating for them, on new institutions (for instance the *Berufsgenossenschaften* in Germany). The costs of these risks were often shared among the partakers of insurance companies. Introduced in 1884, the *Berufsgenossenschaften* were financed by companies and took over from them the financial risks of workplace accidents, which gave them the financial incentive to invest both in research on the causes of accidents and in the development of safety campaigns. During the 1920s, this development gathered considerable speed (Knoll-Jung 2015) and also included campaigns against traffic accidents once the *Berufsgenossenschaften* had to compensate for them as well.<sup>10</sup> In the course of this general development, the old ‘vernacular’ (Arwen Mohun) risk regime was first accompanied, then gradually replaced by a new expert culture of risk regimes (Mohun 2013; Moses 2012).

Equally important, however, was the fact that this newly emerging risk regime was reflected in debates among lawyers and became highly legalised (Moses 2012, 59-61). Its new legal principles developed path dependencies that influenced the regulation of risks other than those they were primarily made to deal with. This also applied to the emerging automobile traffic in the early twentieth century. In the course of the initial controversies about the dangerous nature of this new kind of mobility, legal experts of the federal government and of the governments of several German states, as well as public academic experts, looked at practices and concepts that had already proved effective in relation to railway and workplace accidents, such as the establishment of compulsory insurance systems or the legal regulation of an operational hazard (Merki 2002, 321-5, 354-60).<sup>11</sup>

The first law on automobile traffic in Germany was passed in 1909 and firmly put the burden of any car accident on the driver. While this seems to follow the same approach to individual responsibility that had been in place prior to the automobile age, it was actually an important departure from earlier principles in two respects: First, the reason for this kind of regulation was that many of the earlier car accidents involved pedestrians who were injured or even killed in the course of these crashes. Hence, the law aimed mainly at protecting pedestrians. By contrast, in the nineteenth century, for accidents that involved both pedestrians and horse-drawn coaches, the question of liability had to be settled in each case before compensation could be granted to an injured person. There was no burden of proof on either side. From a pedestrian’s perspective, the automobile law had therefore completely abandoned the principle of individual responsibility. Secondly, as a consequence of the new law

<sup>10</sup> Cf. for instance the *Unfallverhütungswoche* (campaign against accidents) in 1928: BArch R 112/281.

<sup>11</sup> Cf. for the debate e.g. BArch R 1501/113938- R1501/113962.

charging the car driver with the burden of proof, soon a flourishing business of vehicle insurances emerged, effectively taking the onus away from most of the car drivers and thus modifying the idea of personal responsibility (Fraunholz 2002; Merki 2002; 1999, 64).

Yet possibly even more influential was the legal development that followed the establishment of the new regulations in Germany. Lawyers began to discuss whether a driver could be held responsible in situations that lay beyond his control. Concepts like the ‘moment of shock’ (*Schrecksekunde*) or the notion of an ‘inevitable event’ (*unabwendbares Ereignis*) suggested that it was, after all, not always the driver who could be blamed for a road accident (Kleffel 1933). That could be the case if, for instance, a pedestrian crossed a road in such a way that the car driver could not possibly see him before he ran him over. The concept of the ‘inevitable event’ recognised that accidents were sometimes triggered by causes that were beyond the control of car drivers and thus strengthened their legal position. These scientific debates had fundamental consequences – they heightened the awareness of the complexity of risks and they thus tended to turn the person who had been seen as responsible for a risk into a person who was affected by a risk.

It goes without saying that winter weather could also create ‘inevitable events,’ for instance when streets were covered with black ice. The legal situation concerning an obligation to strew sand or salt on slippery roads or to remove snow was, however, complicated and contradictory. A general obligation to care for the safety and security of roads was developed by the Supreme Court of the Reich as early as in 1903. This *Verkehrssicherungspflicht* was the result of an interpretation of civil law principles that dealt with the duty of private owners of land that was open to public traffic. Potentially it also included the duty to strew sand or salt against slippery roads. Yet during the first two decades of the twentieth century, legal experts largely agreed that such an obligation did not exist, especially not outside of built-up areas. The rationale of this legal position was a purely economic one: lawyers and courts agreed that it would exceed the financial capabilities of the local institutions which were mostly charged with the *Verkehrssicherungspflicht* (Ketterer 1935, 83).

The potential financial costs were also one of the central arguments why even the use of snow chains was highly controversial at the beginning of the twentieth century. Occasionally, this led to conflicts between government ministries and local institutions. In 1913, for instance, the local administration of the post services in the city of Regensburg complained about various threats from the police to bring criminal charges against those post coach drivers who made use of snow chains during winter weather.<sup>12</sup> The police was justifying its actions with a law that originated in 1850 and forbade the use of any snow chains on roads that

---

<sup>12</sup> BArch R 4707/32883, letter to the Bavarian Ministry for Transport, 15 February 1913.

were not fully covered with snow. Even then, however, such a strict policy was met with objections. In 1912 and 1913, a lobbyist of the association of the German Automobile Producers (*Verein Deutscher Motorfahrzeug-Industrieller*) as well as private entrepreneurs filed inquiries about the possible use of snow chains in winter time. According to them, the chains presented the only possibility to avoid dangerous skidding on snowy and icy roads.<sup>13</sup>

These attempts to change legal practice and allow for the use of snow chains in spite of the possible damage that these could inflict on the roads proved futile in most cases, but they signalled a change in the notion of winter and what could be done about it. While it did not alter the idea that the driver was ultimately responsible for any accident he caused, it did change the notion of winter as a time whose challenges more or less had to be accepted. The same is true of the – in the early twentieth century – newly emerging concept of *Verkehrssicherungspflicht*: it did not entail an obligation for the state to provide safe roads outside of towns even during winter time, but it certainly changed the role of state institutions compared to the pre-automobile era.

---

## 5. The Winter, the Automobile and the *Reichsautobahnen*

---

When, in the mid-1930s, the National Socialists tried to speed up motorisation in Germany, the risk regime concerning automobile traffic presented a mixed picture: On the one hand, challenges like hazardous weather had not quite lost their traditional character as risks that had to be accepted. On the other hand, the concept of individual responsibility for taking and causing risks had been increasingly challenged by new legal concepts – a development that went hand in hand with safety campaigns against accidents and that was now gathering speed by technical innovations and changed social practices, both affecting the way accidents were perceived by the public and legal experts alike. Although the National Socialist policy of widespread motorisation did, in the end, not prove successful, automobile traffic did become more popular and also more usual after the late 1920s (Möser 2002, 172-87). Increasingly, traffic experts also discussed the function and structure of roads, some of them arguing for their renovation and rebuilding to make them compatible for automobile traffic, some of them even arguing for separate roads for cars that were built solely according to their needs – a concept that was first successfully put into practice in the United States and in Italy (Möser 2002, 91-6).

In Germany, a business consortium had been working on plans for a motorway system since the 1920s, but it was in the 1930s under the national socialist

---

<sup>13</sup> BArch R 1501/113990, Königlicher Regierungspräsident to the Brewery Schönbeck, 15th November 1912; Verein Deutscher Motorfahrzeug-Industrieller to the Prussian Ministry of War, 28th November 1912.

regime that the nationwide system of motorways (*Reichsautobahnen*) was developed (Möser 2002, 180-2). When the motorways opened for traffic in the mid-1930s, complaints came in from road users that these roads were very dangerous and could cause fatal accidents.<sup>14</sup> Winter was a particularly perilous time. Snowdrifts and black ice made parts of the *Reichsautobahnen* unpassable during the harsh winters of 1935/36 and 1936/37. For Fritz Todt, Inspector General for the German Road System (*Generalinspektor für das deutsche Straßenwesen*), who was responsible for organising road traffic in Germany, this situation was untenable. The motorways were not only a highly prestigious propaganda tool for the National Socialists and should therefore not be associated with danger and risk. They were also extremely expensive projects and Todt, an engineer by profession, regarded it as an impossible situation that these costly modern roads could develop into deadly traps during winter time.<sup>15</sup> For Todt, it was clear that the state institutions in charge had to ensure the availability of the motorways to the car drivers in the country regardless of the season. With this demand for a stronger role of state agencies in the provision of safe roads even during winter time, Todt found himself in line with businessmen who contacted him to complain about the difficulties of transport during the winter months, among them also Jan Assmann, the chief executive of the Krupps Kraftfahrzeuge GmbH. In a letter dated March 1936, he complained about the “grievous consequences of black ice for the whole transport system.” In parts of Germany, he continued,

the situation has been so difficult that huge financial assets in the form of cars, lorries, busses and tractors have been destroyed. Furthermore, for many days it has not been possible to make trips to other regions because it has proved impossible to keep the cars on the roads because of black ice.<sup>16</sup>

Assmann assured Todt that the entire business community would very much welcome it if black ice were fought more effectively.

This gentle reprimand was highly welcomed by Todt because it strengthened his belief that rural roads and the *Reichsautobahnen* had to be safe for use even during winter time. As a matter of fact, however, during the winter of 1935/36, various reports about dangerous black ice and tragic accidents on the *Reichsautobahnen* reached the office of the *Generalinspektor*.<sup>17</sup> The mere numbers did not quite justify Todt’s perception – for instance, during the first four months of 1937, a total of only 26 car accidents could be attributed to black ice, slightly more than eleven per cent of all road accidents on the *Reichsautobahnen*.<sup>18</sup> Yet it was not the statistical evidence that concerned Todt

---

<sup>14</sup> BArch R 4601/1104.

<sup>15</sup> BArch R 4601/518 Teil 1, Letter by Todt directed to the Audit Office, 6th July 1936.

<sup>16</sup> BArch R 4601/518 Teil 1, Letter by Assmann to Todt, 2nd March 1936.

<sup>17</sup> BArch R 4601/1104.

<sup>18</sup> BArch R 4601/1104, fol. 90.

and his staff in the office of the *Generalinspektor* and the motorways Head Office but the obvious contrast between a new technology and the sheer and sudden powerlessness in the face of natural forces, which seemed so frightening. As a consequence and in preparation of the coming winter, Todt decided to introduce an obligation to strew sand on icy parts of the *Reichsautobahnen* and those rural roads that fell within the jurisdiction of the Reich (*Reichsstraßen*).<sup>19</sup> In a letter to his subordinates, he asked his colleagues “to let go of the old untenable position that an obligation to grit does not exist.” The local administration, Todt continued, had to become familiar with the notion that, after the experiences of the winter of 1935/36, there must be no threat from black ice again. But as early as during the following winter Todt’s ambition proved to be unrealistic and he complained about ‘lax’ attitudes among the workers for the nascent winter service in the Reich.<sup>20</sup> He was unwilling to accede to financial arguments: If his demand meant additional financial investments then these had to be accepted, Todt argued. To him, the fact that the *Reichsautobahnen* were such a costly enterprise meant that it was not tolerable that they could not be used over large parts of the year.

The practical problems, however, were huge. Todt soon had to realise that his plans to prevent black ice on *Reichsautobahnen* and *Reichsstraßen* were difficult to put into practice. Not enough snow ploughs were available to combat black ice swiftly, and there was hardly any substantial experience with winter maintenance on a large scale. Hence Todt’s office now followed a more pragmatic approach and recognised that natural dangers could not always be completely eliminated, but had to be dealt with practically. Consequently, many different solutions and approaches were now tested, for instance the use of so-called ice-flags which should be hung up in emergency cases and thus warn road users against black ice. Additionally, policemen should warn car drivers in cases of dangerous road conditions, and local construction workers should be kept on standby so that they could immediately start to grit the motorways if necessary. Finally, the radio weather service was also expected to improve its information on weather conditions so that car drivers were warned earlier against possible dangers and could adjust their driving style and speed to road conditions.<sup>21</sup>

These activities indicated a changed attitude towards nature. Its challenges now seemed to be technologically manageable – but not quite avoidable: The pragmatic solutions that Todt’s office sought in the attempt to make the *Reichsautobahnen* safe in winter time also exemplified the difficulties of the attempted technical solutions. Under these circumstances, a mixture between resilience and protection seemed to be the proper way to deal with the chal-

---

<sup>19</sup> BArch R 4601/518 Teil 1, Letter by Todt to his staff, 20 March 1936.

<sup>20</sup> Ibid., Letter to the Head Office of the *Reichsautobahnen*, 30 November 1936.

<sup>21</sup> BArch R 4601/518 Teil 1.

lenges of hazardous weather, at least initially.<sup>22</sup> Unlike in the pre-automobile era, however, Todt's office tried to solve the remaining problems by collecting and evaluating information about the various techniques that could be used to make snowy and icy roads safe.<sup>23</sup> This information included the different experiences with various kinds of snow ploughs in several regions of Germany, from which the office developed precise recommendations for the most efficient method to remove snow and black ice from streets or to at least warn against them. For instance, in accordance with the experiences in the various regions in Germany, the office noticed that the speed with which the snow plough should drive and salt the roads was 25 kilometres per hour. Even the exact height at which ice flags should be put up was regulated.<sup>24</sup> Yet the efforts to get a grip on the problem also included scientific research, for instance concerning the kind of material that could be used to grit the roads.<sup>25</sup>

These efforts indicated the hope and expectation that the risk that arose from voluntary exposure to natural hazards could be reduced by technical intervention by state institutions. From a legal perspective, this development signalled an important shift. Beforehand, lawyers had justified the former exclusion of a winter service from the general *Verkehrssicherungspflicht* with the assumption that such an obligation was technically and economically impossible to fulfil. This argument was under threat once state institutions seemed to prove that a winter service was, after all, possible. It is therefore little wonder that the initiatives by Todt and his office were met by increasing disquiet from the Reich Audit Office, the *Reichsrechnungshof*. For one thing, the Audit Office began to worry about the costs of the winter service, which according to it already amounted to more than 13,000 Reichsmark during the winter of 1935/36 for the route section between Frankfurt and Heidelberg alone.<sup>26</sup> But it was not the sheer costs of the winter service alone that worried the *Reichsrechnungshof*. Its main concern was that a newly established winter service could result in a new legal understanding that it was the duty of the state to fulfil this task – a development that could ultimately produce high costs for the state in all those cases where this new demand or expectation had not been met.<sup>27</sup> The *Rechnungshof* therefore pleaded that, prior to a general practice of snow removal and road

<sup>22</sup> The discovery of the importance of resilient responses towards hazards and risks is explored more extensively in this issue by Nicolai Hannig in his article.

<sup>23</sup> An example of this scientific seeking of a solution: BArch R4601/518 Teil 2, with lots of information on the experiences of the winter service in various regions and the development of snow ploughs.

<sup>24</sup> BArch 4601/519, Letter of the Oberpräsident of East Prussia to the Landesbauamt, 8th February 1937.

<sup>25</sup> BArch R 4601/523 Gl, H. Dauppert, Vortrag über Chlorcalcium, gehalten auf der Forschungsgesellschaft für das deutsche Straßenwesen e.V. in Dresden am 22.11.38 (lecture on chlorcalcium).

<sup>26</sup> BArch R 2301/5821, Letter from the Audit Office to Todt, 15 May 1936.

<sup>27</sup> Ibid., Letter from the Audit Office to Todt, 9 July 1936.

gritting, a law had to be passed that protected the state against any claims for damages by road users.<sup>28</sup>

In spite of the concerns by the Audit Office, Todt even intensified his attempts to establish a winter service in Germany, complaining about the poor quality of the German system compared to the situation in South Tyrol.<sup>29</sup> To avoid any legal consequences of these activities, Todt stressed to his staff that his orders had only been internal instructions. The *Rechnungshof* was incensed. In a phone conversation and a heated exchange of letters, the civil servant Dr. Martin Winzerling warned Todt against great costs that might be the result of such a practice. Winzerling argued that car drivers were using the *Reichsautobahnen* fully at their own risk, thus strictly following the established view of the jurisdiction.<sup>30</sup> Todt not only rejected the criticism that came from the *Rechnungshof*, he also made it clear that he regarded this intervention as an unacceptable infringement upon the responsibilities of his office. Nevertheless, Todt assured Winzerling that he was doing everything in his power to avoid further additional costs for the state that could possibly result from compensation claims in cases of accidents caused by black ice.

The concerns of the *Reichsrechnungshof* about Todt's plans were, however, not unfounded. While the office of the *Generalinspektor* and the *Reichsrechnungshof* were still debating the necessity to remove snow and to grit the roads in 1937 and 1938, the legal debate and jurisdiction began to change significantly. An increasing number of lawyers and legal experts now suggested that it was, after all, indeed the duty of the state to protect its citizens from dangerous slippery roads. In 1935, the lawyer Dr Hermann Ketterer published a scientific legal analysis of the obligation to grit under German law. Even though he represented precisely the jurisprudential *communis opinio* that a general obligation to provide safe roads in the winter did not exist, he questioned the validity of this position quite openly. Like Todt he argued that, given the increasing motorisation in Germany, the traditional attitude towards a road service during the winter had to be changed (Ketterer 1935, 5-6, 83-4). However, Ketterer's precise reasoning differed from Todt's position. While Todt was at pains to stress in his writings both to his subordinates as well as to the *Reichsrechnungshof* that this service had a voluntary character, Ketterer suggested that changed societal practices and expectations had an impact on the meaning of the law. The rationale of such a legal reasoning was that, in the context of an increasingly motorised society, the same standard of safety and security the state provided in other areas could be expected for traffic as well. If this legal reasoning had become the new prevailing opinion in the legal literature, it would have meant immediate consequences for the social and political practices and their legality. In other

<sup>28</sup> Ibid., Letter from the Audit Office to Todt, 3 July 1936.

<sup>29</sup> BArch 4601/518 Teil 1, Letter by Todt to Min.Rat Gotthold et al., 20th March 1936.

<sup>30</sup> Ibid., Letter by Todt to Winzerling, 6 July 1936.

words: While changed expectations and notions of self-evidence had necessitated an adaption of legal ideas, it was exactly these legal concepts that created norms for state action.

Ketterer was not the only legal expert in the 1930s who began to argue that the *Verkehrssicherungspflicht* now extended also to the preparation of roads during winter time – the legal debate was in flux. The change even began to leave its footprints within the jurisdiction – a development that was noted with some concern in the *Reichsrechnungshof*. Since 1931, it was the position of the Supreme Court (the *Reichsgericht*) that the duty of the state and its local institutions to safeguard the maintenance of roads could – in principle – also imply the duty to grit the roads.<sup>31</sup> However, only a couple of years later, the court decided that such a duty will often prove to be impossible to fulfil as it would be too costly and sometimes also technically impossible – state institutions were not even obliged to block roads in the event of dangerous weather. According to the Court, it was up to the driver whether he wanted to use an obviously slippery road or not. If he chose to do so, it was up to him to exert the necessary caution. While some local courts still followed this position – the regional court in Hamburg argued, for instance, that a decision as to whether a slippery road should be gritted or not lay within the administrative discretion of the state and its institutions – the demand for action by the state was clearly rising in the jurisdictions. Local and regional courts decided in several cases after the mid-1930s that the state or its local institutions was obliged to take care of the safety of roads even outside of built-up areas. The courts made their decisions dependent upon two conditions – first, that local authorities were actually able to do something against black ice and second, that the dangerous road conditions had persisted over an extended period of time.<sup>32</sup> As the legal debate dragged on, it became increasingly clear that the legal communis opinio was shifting towards a new understanding of the *Verkehrssicherungspflicht*, implicating an obligation of the state to prevent car drivers from risks that resulted from hazardous road conditions. It is highly probable that such a change of both the scholarly legal prevailing opinion and the jurisdiction indicated a general shift in the public expectations towards risk management by the state (Würtenberger 1991).

This change was closely monitored by both the *Reichsrechnungshof* and members of the staff of the *Generalinspektor*. In 1938, *Reichsbahnoberrat* Brunner, a civil servant working for the office of Fritz Todt, rejected claims by Werner Weigelt, one of the most prolific authors on the subject, that under certain conditions the state-owned company that ran the motorways was obliged to reduce risks and protect users of the motorways. Weigelt had ques-

---

<sup>31</sup> Juristische Rundschau Beilage Höchststrichterliche Rechtsprechung (1932), 314 (Supreme court decision from 23 September 1931, IX 195/31).

<sup>32</sup> BArch R112/281, fol. 38.



tioned the validity of the old, formerly prevailing, argument that the gritting of roads was too costly and that the *Verkehrssicherungspflicht* therefore did not fully apply during the winter. According to Weigelt, the state-owned company was legally obliged to keep motorways open to traffic even under difficult circumstances because it had the financial means. Weigelt's argument contrasted sharply with the opinion of Brunner, who held fast to the view that it lay in the responsibility of the individual driver to adapt to road conditions and avoid driving on roads in hazardous weather conditions. However, Brunner's position was in even sharper contrast to the assessment of the lawyer Fischer. Fischer, who joined the debate at around the same time, argued that Brunner's concept of individual responsibility was a leftover of the old, but long gone age of extreme liberalism. In the new age of *Gemeinschaft*, all participants in the traffic systems formed a community, which could only thrive if its various parts supported each other. One of the most important components of this community, Fischer argued, was the institution that was dealing with the maintenance of roads, for instance the state-owned organisation that ran the *Reichsautobahn*. It was also a member of the national socialist *Verkehrsgemeinschaft* and therefore obliged to do its part for the well-being of the other elements within this community.

It is obvious that Fischer's reasoning was heavily affected by the national socialist ideology – he was talking about community and not about the state and its *Verkehrssicherungspflicht*. The sphere of legal debates was one of those areas that were particularly prone to the influence of national socialist ideology. This was especially true for notions of statehood and the relationship between state institutions and citizens. Even though the road maintenance obligation was regarded as a civil law aspect, it almost exclusively concerned the state (or at least state-owned) institutions, as most roads were owned by the state and its subsidiaries. Hence the legal concept of *Verkehrssicherungspflicht* mainly addressed the relationship between the state and its road users and, in doing so, it depicted the state as the institution that was obliged to give its citizens access to the elements of modern life. This obligation stemmed from the fact that the state was the only institution with the financial and material capabilities to provide these elements of modern life. The renowned public law expert, Ernst Forsthoff, had developed the underlying concept of this reasoning in the mid-1930s. He argued that, in modern industrial societies, individuals had lost autonomous access to the means with which they could organise their life on their own. The main reasons for this were population growth and urbanisation – both leading to a greater distance between those areas where people actually lived (mainly cities and towns) and those areas that were used by society to support itself. Technical advance, as it was expressed in electricity, streets and automobile traffic, could compensate for this gap and ensure the survival and welfare of the individual members of society. Forsthoff called the use of these techniques *Daseinsvorsorge* (services that had the function of providing for one's life) and

he was convinced that *Daseinsvorsorge* could only be organised within the mutual solidarity of social groups. Under the national socialist system, the political institutions and the state were the ones that had took up the task to provide the essential utilities for modern life (Schütte 2006; Stolleis 2002, 203-5).

It was a concept that contrasted sharply to what national socialist lawyers like Fischer regarded as an ultra-liberal concept of the state that solely consisted of a legal framework for human behaviour (Stolleis 2014, 128). The envisioned central role of the state in the *Daseinsvorsorge* also had repercussions on notions of responsibility in risky and hazardous situations. According to this concept, if the state had the means to provide for safe roads even during winter time, it was its duty to do so and not the driver's responsibility to evaluate whether he could risk driving on those roads or not. Todt's own position towards a winter service on the *Reichsautobahnen* followed exactly the same reasoning.

However, one should not jump to conclusions and attribute the shift in the legal implications of risk and responsibility solely to national socialist ideology. Rather, it seems that legal experts of the 'Third Reich' had taken up and intensified developments with origins in the 1920s. ForsthoFF's concept of *Daseinsvorsorge*, for instance, linked up very well with a more general turn in the legal debates since the 1920s that stressed the role of law in creating social and political conditions that were fair and just and counteracted social inequality (Radbruch 1957). Fischer's ideas were therefore not only influenced by particular national socialist legal notions. They were part of a general turn in legal discussions both on responsibilities for risky situations in modern motorised traffic and on the function of law (Seelmann 2001, 83) and the role of the state in general. It stood for the increasingly powerful legal concept that the state had to provide certain levels of security even in spheres where these aspects of statehood were barely existent before – a result of changed notions of self-evidence that were mirrored by legal debates. Automobile traffic had become normal and more common since the mid-1920s. Lorries became popular as practical vehicles for the transport of goods, triggering a widespread debate among traffic experts about how to organise motorised traffic (Schlimm 2011; Möser 2002, 107-10; Kopper 2002, 12-4). At the same time, increasing public enthusiasm about the technical abilities of motorised traffic found expression in highly popular motor races where people were stunned and excited about the speed modern vehicles could reach (Borscheid 2004, 196-213). These elements as well as a growing presence of cars in daily traffic contributed to a familiarisation of the public with motorised traffic and its implications, like for instance the experience of speed and accidents (Möser 2009). Cars and their technical properties challenged established expectations and self-evidences that had governed behaviour on the roads and that were both strengthened and reflected by the law. The change in legal concepts about how to distribute the management of risky

situations in traffic was therefore also a result of changed realities and corresponding public perceptions and expectations.

For the *Reichsrechnungshof*, this change was unwelcome, but it was swift to draw its conclusions from the development of the legal discourse. As early as in 1937, it recommended in a letter to the Inspector General that data be collected about accidents that were the result of hazardous winter weather. By that stage, Todt's office had, however, already fully introduced a still largely unofficial, but extensive winter service for the motorways. In May 1937, the office of the *Generalinspektor* proudly asserted that 'in contrast to earlier measures there is now a real winter service' in Germany. 'In a generous way, it has been attempted to keep roads open during the whole winter.'<sup>33</sup> The assumption that it was the task of state agencies to provide safe roads was in stark contrast to the original attitude of the *Reichsrechnungshof* that laid the burden of responsibility solely with the car driver. The introduction of the winter service in the year 1936/37 was, in any case, only the beginning. In the following months, Todt established a scientific centre for research into the properties of snow, collected data about the quality of snow ploughs that were available on the German market and about the best material for gritting roads. It was now, after all, the state that had become responsible for the winter conditions on the streets.

---

## 6. Law and Everyday Risks as Historical Forces

---

The developments in the 1930s that created a winter service on the streets marked a significant shift in the role of the state in the nineteenth and early twentieth centuries. While the accident involving the French ambassador and his wife raised some attention in Berlin, it was at the same time clear that this attention was caused by the fact that persons of public interest were involved. Winter and its hazards were a natural phenomenon against which only very limited protection was available. The introduction of a winter service in the 1930s signalled a shift in two ways: it indicated a changed role of the state and its institutions and represented a changed attitude towards nature. Its challenges and hazards were no longer interpreted as dangers and threats whose effects could hardly be controlled. They now seemed to be manageable and even preventable if state institutions took appropriate measures. Winter as a season became a phenomenon something could be done about.

It followed from this proposition that state institutions were obliged to protect road users from black ice and snowdrifts. It also followed from this proposition that the altered character of the now seemingly manageable risk changed

---

<sup>33</sup> BArch R 4601/518, Teil 2, Memorandum from the Office of the Inspector General, 31st May 1937.

the role of car driver. He was now increasingly seen as a person who was affected by a risk rather than responsible for it. Undoubtedly, these developments owed a lot to specific political developments in the late 1930s. Todt wanted safe roads in the winter not least because it was in the interest of the prestigious project of the successfully constructed motor ways. Additionally, the legal debates themselves in the 1930s were influenced by the national socialist ideology of the day. However, the essence of the debate took place independently from what happened on the political level and reflected a shift in the notion of social justice and the role of the state that was not originally triggered by the 'Third Reich.' Rather, the debate about risks and responsibility and about the functions and tasks of the state reflected a gradual shift in the legal literature that dated back to the 1920s.

In the early twentieth century, the Supreme Court had exempted state institutions from having to take action against black ice and from the general duty to keep roads open and safe only because it had regarded such a duty as being economically and technically unfeasible. After the late 1920s when this argument increasingly lost ground, both regional courts and legal scholars began to acknowledge that the *Verkehrssicherungspflicht* also extended to hazardous weather during winter time. The legal debate was important, as it not only reflected the rising motorisation in Germany and the increasing technical abilities to prevent icy road conditions – it also followed own intrinsic rules. The law was not only reacting to changing circumstances, it was at the same time an accelerating element in the establishment of a new role of state institutions. Law adapts to changed notions of self-evidence, and the course of the legal discussions since the 1920s was a fair reflection of changed social expectations concerning state action against road hazards, but it also gave these notions of self-evidence a legal character by interpreting established legal concepts in the light of these discourses and attitudes. In doing so, however, it also changed the content of these notions by adjusting them to existing legal principles. The reason for the intense debate between the *Reichsrechnungshof* and the Inspector General about the introduction of a general winter service was the fact that the legal debates not only represented changed public expectations, but they could have costly financial consequences.

Law was therefore an influential force in constructing the management of everyday risks in Germany in the first half of the twentieth century. It thereby influenced the role of the state that was now in charge of areas and problems which hitherto had either not been regulated at all or had been the responsibility of individuals who chose to take those risks (like, for instance, driving on the roads during the winter). In doing so, it also reinforced societal notions of social justice and thus influenced the relationship between individual rights, on the one hand, and community rights on the other. As had already occurred in other fields of risk mitigation, concepts of individual responsibility were gradually being mixed in the field of road traffic and replaced with a risk manage-

ment that was based both on the distribution of costs among larger parts of society and the provision of safety and security by the state. The burden of prevention was shifted from the car driver, who had to act responsibly in the face of difficult and hazardous weather conditions, to the state and its institutions, which had to create conditions that made driving even in hazardous weather conditions safe. This kind of new *Daseinsvorsorge* was not primarily a result of the late 1930s alone, but a consequence of new social practices and a legal debate that reflected these changes.

---

## References

---

- Becker, Peter. 2005. Zur Theorie und Praxis von Regierung und Verwaltung in Zeiten der Krise. In *Kulturelle Konsequenzen der "Kleinen Eiszeit"*, ed. Wolfgang Behringer, Hartmut Lehmann and Christian Pfister, 347-67. Göttingen: Vandenhoeck & Ruprecht (Veröffentlichungen des Max-Planck-Instituts für Geschichte 212).
- Behringer, Wolfgang. 2003. *Im Zeichen des Merkur: Reichspost und Kommunikationsrevolution in der Frühen Neuzeit*. Göttingen: Vandenhoeck & Ruprecht (Veröffentlichungen des Max-Planck-Instituts für Geschichte 189).
- Behringer, Wolfgang. 2007. *Kulturgeschichte des Klimas: Von der Eiszeit bis zur globalen Erwärmung*. Bonn: bpb (Schriftenreihe der Bundeszentrale für Politische Bildung 669).
- Berridge, Virginia. 2003. Post-War Smoking Policy in the UK and the Redefinition of Public Health. *Twentieth Century British History* 14: 61-82.
- Böckenförde, Ernst W. 1999. Staatliches Recht und sittliche Ordnung. In *Staat, Nation, Europa: Studien zur Staatslehre, Verfassungstheorie und Rechtsphilosophie*, ed. Ernst W. Böckenförde, 208-32. Frankfurt a. M.: Suhrkamp (Suhrkamp Taschenbuch Wissenschaft 1419).
- Borscheid, Peter. 2004. *Das Tempo-Virus: Eine Kulturgeschichte der Beschleunigung*. Frankfurt a. M.: Campus.
- Brüggemeier, Franz-Josef. 1996. *Das unendliche Meer der Lüfte: Luftverschmutzung, Industrialisierung und Risikodebatten im 19. Jahrhundert*. Essen: Klartext.
- Brüggemeier, Franz-Josef. 2014. *Schranken der Natur: Umwelt, Gesellschaft, Experimente 1750 bis heute*. Essen: Klartext.
- Fraunholz, Uwe. 2002. *Motorphobia: Anti-automobiler Protest in Kaiserreich und Weimarer Republik*. Göttingen: Vandenhoeck & Ruprecht (Kritische Studien zur Geschichtswissenschaft 156).
- Gigerenzer, Gerd. o. J. [2015]. Risikokompetenz. In *Dorsch: Lexikon der Psychologie Online*, 17th ed., ed. Markus A. Wirtz <<https://portal.hogrefe.com/dorsch/risiko-kompetenz>> (Accessed October 7, 2015).
- Grimm, Dieter. 2000. Die Bedeutung des Rechts in der Gesellschaftsgeschichte. In *Perspektiven der Gesellschaftsgeschichte*, ed. Paul Nolte, Manfred Hettling, Frank-Michael Kuhlemann and Hans-Walter Schmuhl, 47-57. Munich: C. H. Beck.

- Hattenhauer, Hans 1994. *Allgemeines Landrecht für die preußischen Staaten. Von 1794*, 2nd ed. Neuwied, et al.: Hermann Luchterland.
- Ketterer, Hermann. 1935. *Die Streupflicht in Gesetzgebung und Rechtsprechung mit besonderer Darstellung der Haftung von Behörden und Privatpersonen für Schäden durch Winterglätte*. Munich and Berlin.
- Kleffel, Werner. 1933. Schuld oder Schuldlosigkeit bei Verkehrsunfällen: Vorhersehbarkeit – Geistesgegenwart – Schrecksekunde. *Deutsche Zeitschrift für die gesamte gerichtliche Medizin* 20: 1-33.
- Klenke, Dietmar. 1995. *Freier Stau für freie Bürger: Die Geschichte der bundesdeutschen Verkehrspolitik, 1949-1994*. Darmstadt: Wissenschaftliche Buchgesellschaft (WB-Forum 97).
- Knoll-Jung, Sebastian. 2015. Vom Maschinenschutz zur Unfallverhütungspropaganda – Paradigmenwechsel präventiver Praktiken in der Unfallversicherung zur Zeit der Weimarer Republik. In *“Geschichte der Prävention: Akteure, Praktiken, Instrumente.”: Akteure, Praktiken, Instrumente*, ed. Sylvelyn Hähner-Rombach, 17-40. Stuttgart: Steiner.
- Kopper, Christopher. 2002. *Handel und Verkehr im 20. Jahrhundert*. Munich: Oldenbourg (Enzyklopädie deutscher Geschichte 63).
- Martin, Jochen. 2006. Der Wandel des Beständigen: Überlegungen zu einer historischen Anthropologie. In *Historische Anthropologie: Basistexte*, ed. Aloys Winterling, 143-57. Stuttgart: Steiner (Geschichte 1).
- Merki, Christoph M. 1999. Die “Auto-Wildlinge” und das Recht. In *Geschichte der Straßenverkehrssicherheit im Wechselspiel zwischen Fahrzeug, Fahrbahn und Mensch*, vol. 1, ed. Armin Hermann and Harry Niemann, 51-74. Bielefeld: Delius Klasing.
- Merki, Christoph M. 2002. *Der holprige Siegeszug des Automobils 1895-1930: Zur Motorisierung des Strassenverkehrs in Frankreich, Deutschland und der Schweiz*. Vienna: Böhlau.
- Mohun, Arwen P. 2013. *Risk: negotiating safety in American Society*. Baltimore: Johns Hopkins University Press.
- Möser, Kurt. 2002. *Geschichte des Autos*. Frankfurt a. M. and New York: Campus.
- Möser, Kurt. 2008. Prinzipielles zur Transportgeschichte. In *Transportgeschichte*, vol. 1, ed. Rolf P. Sieferle, 39-78. Berlin: LIT (Der Europäische Sonderweg 1).
- Möser, Kurt. 2009. *Fahren und Fliegen in Frieden und Krieg: Kulturen individueller Mobilitätsmaschinen 1880-1930*. Heidelberg, Ubstadt-Weiher, Neustadt a. d. W. and Basel: verlag regionalkultur (Technik + Arbeit 13).
- Moses, Julia. 2012. Contesting Risk: Specialist Knowledge and Workplace Accidents in Britain, Germany, and Italy, 1870-1920. In *Engineering society: The role of the human and social sciences in modern societies, 1880-1980*, ed. Kerstin Brückweh, Dirk Schumann, Richard Wetzell and Benjamin Ziemann, 59-78. Basingstoke: Palgrave Macmillan.
- Poppe, Johann Heinrich Moritz von. 1837. *Geschichte aller Erfindungen und Entdeckungen im Bereiche der Gewerbe, Künste und Wissenschaften von der frühesten Zeit bis auf unsere Tage*. Stuttgart.
- Popplow, Marcus. 2008. Europa auf Achse – Innovationen des Landtransports im Vorfeld der Industrialisierung. In *Transportgeschichte*, ed. Rolf Peter Sieferle, 79-142. Münster: LIT.

- Porter, Roy. 1997. Accidents in Eighteenth Century. In *Accidents in history: Injuries, fatalities, and social relations*, ed. Roger Cooter and Bill Luckin, 90-106. Amsterdam and Atlanta: Rodopi (Clio medica 41).
- Porter, Roy. 2006. Hospitals and Surgery. In *The Cambridge history of medicine*, revised ed., ed. Roy Porter, 176-210. Cambridge and New York: Cambridge University Press.
- Radbruch, Gustav. 1957. Vom individuellen zum sozialen Recht. In *Der Mensch im Recht: Ausgewählte Vorträge und Aufsätze über Grundfragen des Rechts*, ed. Gustav Radbruch, 35-49. Göttingen: Vandenhoeck & Ruprecht.
- Reinhard, Wolfgang. 2004. *Lebensformen Europas. Eine historische Kulturanthropologie*. Munich: C. H. Beck.
- Schlimm, Anette. 2011. *Ordnungen des Verkehrs: Arbeit an der Moderne – deutsche und britische Verkehrsexpertise im 20. Jahrhundert*. Bielefeld: transcript (Histoire 26).
- Schütte, Christian. 2006. *Progressive Verwaltungsrechtswissenschaft auf konservativer Grundlage: Zur Verwaltungsrechtslehre Ernst Forsthoffs*. Berlin: Duncker & Humblot (Schriften zur Rechtsgeschichte Heft 128).
- Seelmann, Kurt. 2001. *Rechtsphilosophie*, 2nd ed. Munich: C. H. Beck (Grundrisse des Rechts).
- Stolleis, Michael. 2002. *Geschichte des öffentlichen Rechts in Deutschland: Weimarer Republik und Nationalsozialismus*. Munich: C. H. Beck.
- Stolleis, Michael. 2014. *Öffentliches Recht in Deutschland: Eine Einführung in seine Geschichte (16.-21. Jahrhundert)*. Munich: C. H. Beck (Becksche Reihe 6135).
- Würtenberger, Thomas. 1991. *Zeitgeist und Recht*, 2nd ed. Tübingen: Mohr.
- Zwierlein, Cornel. 2011. *Der gezähmte Prometheus: Feuer und Sicherheit zwischen Früher Neuzeit und Moderne*. Göttingen: Vandenhoeck & Ruprecht (Umwelt und Gesellschaft 3).